

**BUTTERFLIES IN JORDAN, SYRIA AND LEBANON,  
28.v.94 to 7.vi.94.**

PETER B. HARDY

*10 Dudley Road, Sale, Cheshire.*

THE BUTTERFLIES of Lebanon and Jordan have been thoroughly documented by Larsen (1974) and Larsen and Nakamura (1983) respectively. I am unaware of any recent publication on the butterflies of Syria. The following notes are from a two-week tour of the three countries, and may be regarded as an amplification of some of Larsen's records plus some additional ones. They are all sight and/or photographic records; I do not collect "specimens".

The tour was primarily intended for steam railway enthusiasts, and thus was based on the main railway systems – the "Hedjaz" line from Amman to Damascus via Dera'a, and also southwards from Amman as far as Qatrana; the branch lines from Dera'a to Bosra and from Dera'a to Mzeireib; and the D.H.P. (Société Ottomane du Chemin de Fer Damas-Hama et Prolongements) line now truncated to the Damascus-Serghaya section but which formerly ran from Damascus through to Beirut. The tour also included a day excursion by coach from Damascus to Beirut primarily to investigate the remains of the western section of this line.

Vegetation types in Jordan and Lebanon are described by Larsen and Nakamura (1983) and Larsen (1974). In the present study, most of the sites visited in Jordan fall into Larsen's "Northern Mediterranean" and "Eastern Desert" zones, the flora of each of which is depauperate as a result of centuries of deforestation and overgrazing, and consists primarily of degraded *garrigue*, with virtually no tree cover and the open country heavily grazed especially by goats. Small scraps of grassland with some regeneration of natural vegetation occur in and around towns. The area around Petra, in Larsen's "Southern Mediterranean" zone, provides a greater variety of habitats, ranging from the xeric sandstone of the Roman city to Wadi Musa, the main approach from the east, a quite fertile valley but heavily grazed by horses which are used to transport tourists into the Roman city. At the west end of the site are dry valleys with rocky walls (Wadi es Siyagh and Wadi Kharrubet ibn Jubeimer) containing some established vegetation dominated by oleanders.

The Syrian localities are again mostly sun-baked, degraded *garrigue* with little vegetation, apart from those along the Serghaya line, which starts through a quite fertile and well-wooded, but narrow and steep-sided valley; then opens out between Tequieh and Zebdani; there is the hillside on the south side of the line, with a north-facing slope, referred to in the *Chazara persephone* and *Pseudochazara mamurra* species accounts; Zebdani is a small but "bustling" town but with scraps of greenery; the terminus at Serghaya (altitude 1372m) is in agricultural land below the Anti-Lebanon

foothills. A further habitat type is provided by an artificially planted "forest belt" around the city of Damascus; however, few butterflies apart from the vagile Pierids appear to have adapted to this region.

Of the sites in Lebanon, Rayak is an agricultural area which falls in Larsen's "Syrian Beqaa Zone" (500-1000m), Beirut is in his "Lower Mediterranean" zone and the roadside site when crossing the southern section of the Mt. Lebanon range would fall under his "Upper Mediterranean" zone. The much greater richness of the vegetation in Lebanon than in Syria or Jordan is very noticeable and is paralleled by the number of butterfly sightings and species recorded during the single day's excursion into that country compared with the whole of the remainder of the fortnight. The weather throughout the two weeks was hot and sunny, with only a few spots of rain one day in Damascus.

Understandably, most lepidopterists travelling abroad would normally plan to visit sites known for their species-richness. I have certainly often done so myself. There are, however, also advantages in the alternative method of study of taking a general cross-section of a country as a whole, without attempting to choose sites for their richness, and being constantly on the look-out for whatever butterflies are seen and where. Although the species seen on such a visit are unlikely to include many rarities, it is possible to gain a much truer impression of just what proportion of the whole environment butterflies are still able to utilise, and which species are best adapted to utilise it. Butterflies are generally accepted as good "indicator" species. Thus a rail tour, with frequent photographic stops along the route, chosen for their variety and representative of the "real" country and not restricted either to "tourist" sites or to selected nature reserves, can offer an ideal opportunity for such a study.

Species accounts are treated as follows: Scientific name; common name (following Larsen, 1974); localities with approximate numbers seen, or "N" when several specimens were seen but the exact number not recorded (for key to localities see Table 1. Where sets of initials separated by a dash are given, this denotes an unnamed location between the two, for example "R-BE" means an unspecified location between Rayak and Beirut).

*Papilio machaon syriacus* Verity 1905 (Swallowtail)

Jordan: M(1). Lebanon: BE(R)(1), J(1).

No obvious breeding habitat was noted anywhere. Larsen (1974) remarks that in Lebanon the species favours disturbed land. Of the three sightings, two were opportunist nectaring, one utilising the wild flowers which had almost wholly taken over the abandoned main railway yard in Beirut, and the other in totally unsuitable habitat outside a café in Jounieh, utilising ornamental flowers in pots. The third sighting was an individual on passage, overflying the station yard at Mafraq during a lunchtime stop on 29.v.94.

*Iphiclides podalirius virgatus* Butler 1865 (Pear-tree Swallowtail)

Syria: G(1).

A single sighting, at 12.52pm on 5.vi.94, overflying Ghazale station on the main Damascus-Dera'a railway line, during a half-hour stop there.

*Pieris brassicae catoleuca* Röber 1896 (Large White)

Jordan: P(G)(1), P(C)(c.6). Syria: C(1), DC(1), DU(1), T(?).

Lebanon: R(W)(1).

The only site where this species was seen in any numbers was Petra, on 31.v.94. At the entrance to the dry river-valley (Wadi es Siyagh) at the west end of the Roman city, several were noted patrolling, around mid-day, and were flying in and out of small caves on the shady north side of the valley. Elsewhere, sightings were limited to singles in the Damascus area and at Rayak.

*Pieris rapae leucosoma* Schawerda 1905 (Small White)

Jordan: A1-4(N), A(H)(N), JE(N), J(A)(1), M(2+1). Syria: B(C)(N), B(H)(N), B(S)(1), C(6), D(C)(1), D(S)(1-2), D'A-D(1), D-DU(1), S(N), T(?), Z(3), Z-S(N). Lebanon: BE(S)(5), BE(R)(16), R(B)(1), R(S)(N), R(W)(2).

This species was far more numerous than *P. brassicae* and able to exploit most biotopes apart from open desert. It was to be found in any area of cultivation or populated area with some open space. The highest concentration seen was in the abandoned railway yard at Beirut, on 3.vi.94. At the Jordanian and Syrian sites it frequently occurred with *Pontia daplidice* but was always out-numbered by that species.

*Pieris napi dubiosa* Röber 1907 (Green-veined White)

Syria: Z(1).

A single confirmed sighting, at Zebdani, nectaring on a white Crucifer growing in a small wet flush beside a road in the outskirts of the town, along with several *P. rapae*. This subspecies is difficult to distinguish from *P. rapae* so could be under-recorded; however, very little of the damper habitat normally favoured by *P. napi* was observed anywhere.

*Pontia daplidice daplidice* Linné 1758 (Bath White)

Jordan: A1-3(N), A(H)(N), DS(1), DV(2), JE(N), LF(N), M(4), P(AR)(N), P(G)(1), P(O)(1), P(VC)(N), P(C)(3), QH(1), ZE(1), Syria: B(C)(N), B(S)(1+2), C(14), D'A(N), D'A-D(N), D(C)(1), DER(2), G(2), S(N). Lebanon: BE(R)(1), R(S)(N), R(W)(1).

An extremely successful species; in Jordan and Syria it was the commonest butterfly and likely to be seen anywhere including open desert. A site where it was particularly numerous was the railway works at Cadem, near Damascus. There were a number of weedy as well as some cultivated Crucifers around this site; during approximately two hours, fourteen *P. daplidice*, six *Pieris rapae* and one *Pieris brassicae* were noted; no other butterflies were present here. It was noticeably less frequent, and either absent or outnumbered by *P. rapae*, at the lower-altitude Lebanese sites.

*Colotis fausta fausta* Olivier 1804 (Salmon Caper)

Jordan: DS(1), P(G)(6), P(VC)(N), P(C)(2).

This species is migrant, but a strong seasonal population was present at Petra, especially in the dry valley (Wadi Siyagh) leading westwards away from the Roman city at its western end; a female was seen ovipositing on a tiny plant of *Capparis*, half-hidden by other vegetation and in the shade of the rocks on the north edge of the valley. Males were patrolling this area; several males were also seen outside the main habitat, including the very deep, vertical-sided gorge (Es-Siq) which provides the main entrance to the Roman city, from the east. Some of these disorientated butterflies were pausing to nectar on the scant flowers at the side of the gorge.

*Colias croceus croceus* Geoffroy 1785 (Clouded Yellow)

Jordan: LF(1), P(VC)(1). Syria: B(H)(1), D'A-D(2-mating pair), T-Z(1), Z(1), Z-S(1 *helice*). Lebanon: R(S)(1).

Singles of this migratory butterfly were seen in a number of different sites, particularly where there was some cultivation. A mating pair, the female being a *helice*, was observed on a chance stop made for the purpose of photographing the steam train on the journey from Dera'a to Damascus 1.vi.94.

*Gonepteryx rhamni meridionalis* Röber 1970 (Brimstone)

Syria: S(1). Lebanon: BE(H)(1).

Two sightings only: one was seen from the coach on the descent into Beirut, in a suburban area; and another at Serghaya in agricultural land.

*Polygonia egea egea* Cramer 1775 (Southern Comma)

Jordan: J(1), P(VC)(1). Syria: B(C)(1), B(H)(1).

This is a thermophilic Mediterranean species and all the sightings were at xeric sites with much bare ground and stone walls or ruins, providing the surfaces on which it likes to bask.

*Pandoriana pandora pandora* Denis & Schiffermüller 1775 (Cardinal)

Syria: S(1).

One at Serghaya, just south of the station area, beside a lane with hedgerows in agricultural land. The butterfly settled briefly on top of a hedge, flew off when approached, made two circuits of the area, again once briefly settling, and was then lost.

*Melitaea trivia syriaca* Rebel 1905 (Mullein Fritillary)

Jordan: DS(1). Syria: H(1). Lebanon: BE(R)(2).

This species was seen in widely differing habitats. A small colony was found in the abandoned C.F.L. railway yard, near sea-level in Beirut. Larsen (pers. comm.) confirms that old railway yards are ideal for the larval hostplant. Another small population was found on the steep, north-facing, sparsely vegetated hillside south of the railway line from Damascus to Serghaya, in



the Nahr Berada valley; and a single *Meliatea*, which briefly paused to nectar on an isolated thistle flower by the lineside at a photographic stop in the desert south of Mafraq was presumably this species.

*Melanargia titea titea* Klug 1832 & *M. titea palaestinensis* Staudinger 1901 (Levantine Marbled White)

Jordan: (WM)(wing!). Syria: H(1), S(1), Z(1). Lebanon: R-BE(N), R(S)(1), R(B)(1).

This species gave the impression of being much more widely distributed and common in the more fertile Lebanon than in Jordan and Syria. In Lebanon it was found at an altitude of approximately 1500m. during a brief stop where the main Damascus-Beirut road crosses the range of hills (Jabel el Knisse) forming the southern foothills of Mt. Lebanon, as well as in grassland at Rayak, in the Beqaa Valley. In Syria it was seen in smaller numbers on the north-facing hillside above the railway line from Damascus to Serghaya, and also at Serghaya and Zebdani and gave the impression of being generally distributed, but not abundant, in that area. The butterfly was not seen alive in Jordan, but a single detached wing was found outside the "Petra Forum" hotel, Wadi Musa – this could either be an indicator of a local population, or else the wing might have inadvertently been carried there in a tourist vehicle – the latter explanation is perhaps more likely as Larsen & Nakamura (1993) do not give any records of the species in the Petra area.

*Chazara persephone transiens* Zerny 1932 (Great Steppe Grayling)

Syria: H(N), Z(2).

This species occurred on the north-facing hillside west of Damascus on the railway line to Serghaya, flying in company with *Pseudochazara mamurra*. It was also seen in less suitable habitats nearby, including the town of Zebdani, giving evidence of a strong local population with powers of dispersal. Larsen (1974 and 1983) remarks on it being "very scarce", however, he adds (pers. comm.) that when found it may be numerous. He has also confirmed my identification of this species from a photograph.

*Pseudochazara telephassa telephassa* Hübner 1819-26 (Telephassa Grayling)

Jordan: A(S)(1+1+1), A(CS)(2), A3(1), A4(2), DV(1), P(VC)(1?), QH(1).

It was worth looking for this species in rocky places in Jordan where the topography of the rocks would provide at least some shelter. The small engine shed just north-east of Amman station is at the base of a steep, rocky hillside, beneath houses and with much dumped rubbish, but even here in a scrap of land behind the shed building, which received the early morning sun, a single *P. telephassa* (the same individual?) was seen on three mornings. The butterfly appeared to have roosted overnight in a small cave and on one occasion was observed to fly back into the cave and settle inside. The species was also seen at several other sites along the railway line south of Amman and once at a stop in the desert on the way to Qatrana.

*Pseudochazara mamurra larseni* Kocak (Buff Asian Grayling)

Syria: B(C)(2), B(H)(1), H(N), Z(N).

A Satyrine flying on the steep north-facing hillside above the Serghaya line, west of Damascus, in company with *Chazara persephone*, was tentatively identified by me as *P. pelopea*, but Larsen (pers. comm.) has identified it from my photograph as *P. mamurra*. The butterfly occurred in numbers on that hillside, and, like *C. persephone*, was also seen in marginal habitats nearby including Zebdani town. Another locality was Bosra; the xeric surrounds of the Roman castle provided suitable habitat and it was also in the grounds of the "Cham Palace" hotel. These Bosra examples may have been *P. pelopea*; Larsen (pers. comm.) remarks that *P. mamurra* usually emerges later than *P. pelopea* and being lighter in colour is often passed over as a faded *P. pelopea*.

*Maniola telmessia telmessia* Zeller 1847 (Oriental Meadow Brown)

Lebanon: R(S)(1).

A single fresh specimen was seen at Rayak 3.vi.94. Very probably the emergence was only just beginning – I had expected this species to be a lot commoner.

*Ypthima asterope asterope* Klug 1832 (African Ringlet)

Lebanon: BE(S)(8).

A localised colony occurred around the old locomotive maintenance pits at the former D.H.P. engine-shed in Beirut (port area). None were found anywhere else. Larsen (1974) refers to this as an eremic species and mentions that it is consistently found in the monotonous "garrigues" even where there are no small valleys and gorges; he also refers to it as the only widespread species in those areas. This Beirut locality, however, was well vegetated and quite shady, with regenerating trees around the locomotive storage area.

*Pararge aegeria aegeria* Linné 1758 (Speckled Wood)

Syria: DU(1), V(N).

Seen in numbers in the well-wooded valley (Nahr Berada) followed by the Serghaya line north-westwards from Damascus, mainly around Dummar, the first station west of Damascus. No suitable habitat for this species was seen elsewhere.

*Lasiommata maera orientalis* Heyne 1984 (Large Wall Brown)

Lebanon: BE(C)(2).

The bomb damage in the centre of Beirut had provided a transient habitat for this butterfly and during a brief stop to view the appalling destruction two examples were noted, in a small area of grass and regenerating vegetation, thermoregulating on the rubble. Not seen elsewhere.

*Lycaena phlaeas timeus* Cramer 1777 (Small Copper)

Jordan: A(H)(1). Lebanon: R(W)(1).

Two sightings, one on a small area of vacant grassland in the residential district of Shmeisani, Amman, and one by a roadside at Rayak, Lebanon. The Amman site was burnt the following day and searches in similar sites in the vicinity failed to find any more. Clearly, however, the butterfly is able to find and locate small scraps of habitat in suburban areas amidst largely unsuitable environment. The subspecies *timeus* has the orange ground colour of the upperside forewing heavily overlaid with dark scales.

*Lycaena thersamon omphale* Klug 1834 (Lesser Fiery Copper)

Jordan: A1(1), A2(2), A(H)(2+2), DS(1), M(1), P(O)(2-3), QH(1). Syria: B(H)(1+N), B(S)(1), Z(1).

By far the most successful *Lycaenid* in the area, much more so than *L. phlaeas*. It was worth looking for in any scrap of green. Larsen (1974) refers the race to *kurdistanica* Riley 1921, mentioning that *omphale* was probably only a seasonal form; however, Larsen & Nakamura (1983) refer it to ssp. *omphale*. *Omphale* is frequently understood to refer to the form of the female with tails to the hind-wing; I saw both tailed and untailed females.

*Lampides boeticus boeticus* Linné 1767 (Long-tailed Blue)

Jordan: A(H)(2). Syria: B(H)(1).

A migrant species likely to turn up in any suitable habitat; noted at Amman (Shmeisani) and in the grounds of the "Cham Palace" Hotel, Bosra. A *Lycaenid* seen briefly in very xeric habitat at Jiza (the station near Queen Alia International Airport) was probably this species.

*Tarucus balkanicus balkanicus* Freyer 1845 (Little Tiger Blue)

Syria: Z(1).

One was seen in Zebdani, nectaring, on rubbish-strewn waste land by a stream in a small valley in the suburbs of this town.

*Freyeria trochylus trochylus* Freyer 1845 (Grass Jewel)

Jordan: A2(1?).

One unconfirmed sighting beside the railway east of Amman.

*Aricia agestis agestis* Denis & Schifferrmüller 1775 (Brown Argus)

Jordan: A3(1), QH(1).

Larsen and Nakamura (1983) state that in Jordan this species "is restricted to the northern Mediterranean zone and can only be described as rare". Having found it by chance in two localities in the Amman area, on tiny patches of *Geranium* growing close to the railway, above the tunnel hill and at Qasir um al Heeran station, I incline to the belief that it may be commoner than Larsen and Nakamura suggest.

*Polyommatus icarus zelleri* Verity 1919 (Common Blue)

Jordan: A1(2-3), A2(1), A(H)(3-4+N), J(3), M(1), P(O)(c.3). Syria: T(c.3). Lebanon: JOU(1), R(W)(1).

Like *Lycaena thersamon*, this species seems well able to exploit small patches of habitat. In several localities the two species occurred together, including the scraps of wasteland in the Amman area, though *P. icarus* was less widely distributed. *P. icarus* also shared habitat with *L. phlaeas* in the two sites where that species was found.

*Carcharodus alceae alceae* Esper 1780 (Hollyhock Skipper)

Jordan: A2(1), P(AR)(1), P(O)(N), P(VC)(1), P(C)(3), QH(1).

Syria: D'A-D(1).

Petra was an evident stronghold. Others were seen on small areas of grassland beside the railway in the Amman area. The only sighting outside Jordan was one beside a bridge over the railway during a brief photographic stop on the journey between Dera'a and Damascus 1.vi.94. It is possible that some of the sightings, particularly at Petra, could have been *C. stauderi ambigua* Verity 1925 or *C. orientalis maccabeus* Hemming 1932.

### Table 1. Localities.

#### (a) Jordan.

- A(S) 31°58'N 35°58'E AMMAN ENGINE SHED.  
Steep rocky cutting and very small patch of waste ground behind shed building, immediately north-east of Amman station.
- A(CS) 31°58'N 35°58'E AMMAN (cutting south-west of station).  
Steep-sided railway cutting through limestone.
- A(1) to AMMAN – sites beside the railway line to Qasir um al Heeran,  
A(3) south-east of the city (distances from Amman station by railway in kms):  
A(1) cemetery; adjacent grassland on hillside (0.8).  
A(2) cemetery; adjacent grassland in valley (3.4).  
A(3) west-facing hillside above mouth of short tunnel (6.2).
- A(H) 31°58'N 35°54'E AMMAN – vicinity of Al-Qasr Hotel, Shmeisani, north-west of city; small areas of vacant grassland/wasteland amidst residential area; grass subject to burning.
- DS (DESERT STOPS) – various stops during train journeys, Amman-Mafrq.
- DV 31°23'N 36°07'E (DESERT VALLEY) – photographic stop on train journey from Amman southwards to Qatrana.
- J(A) 31°42'N 35°58'E JIZA – station on railway south of Amman, intended to serve Queen Alia International airport; desert vegetation.



- JE 32°17'N 35°53'E JERASH – Roman city and environs.  
 LF (LINESIDE FIELDS) – train journey, Amman-Mafraq.  
 M 32°20'N 36°12'E MAFRAQ – area around station; very arid; a few small trees.  
 P 30°19'N 35°27'E PETRA – Roman city and environs:  
 (AR) above ruins  
 (VC) Valley and caves  
 (C) the Roman city  
 (G) the gorge leading into Petra from Wadi Musa  
 (O) the open grassland and dry valley above the gorge.  
 QH 31°54'N 35°56'E QASIR UM AL HEERAN – suburban station south-east of Amman; 12.5km from Amman station by rail; adjacent grassland.  
 WM 30°19'N 35°29'E WADI MUSA – the “Petra Forum” hotel.  
 ZE 32°02'N 36°06'E ZERKA – area around station.

**(b) Syria.**

- B 32°31'N 36°29'E BOSRA:  
 (C) Bosra castle – Roman citadel, and the grassland below  
 (H) the grounds of the “Cham Palace” hotel – several flower-beds  
 (S) the area around Bosra station.  
 C 33°28'N 36°18'E CADEM (also spelt QADAM) – decadent railway works near Damascus; still active but the locomotive storage yard very over  
 D 33°31'N 36°18'E DAMASCUS:  
 (C) city  
 (S) the main station (Kanawat).  
 D'A 32°38'N 36°06'E DERA'A – border station on the main “Hedjaz” Amman-Damascus line; active but with some weedy vegetation.  
 (D'A-D) various lineside stops between Damascus and Dera'a.  
 DER 33°17'N 36°18'E DERALI – station between Damascus and Dera'a; desert.  
 DU 33°30'N 36°14'E DUMMAR – first station west of Damascus on Serghaya line; in wooded valley.  
 G 32°44'N 36°12'E GHAZALE – station between Damascus and Dera'a; desert.  
 H 33°34'N 36°05'E (HILLSIDE) – north-east-facing sloping valley side south of Damascus-Serghaya railway line; rocks and sparse vegetation.

- S 33°49'N 36°09'E SERGHAYA – current terminus of the former DHP (Damas-Hama et Prolongements) railway from Damascus to Beirut: agricultural area around station yard.
- T 33°39'N 36°04'E TEQUIEH – station on Damascus-Serghaya line.
- V 33°34'N 36°13'E (VALLEY) – north-west of Damascus the railway line to Serghaya initially follows the narrow, wooded valley of the Nahr Barada river.
- Z 33°44'N 36°06'E ZEBDANI – small “bustling” town on Damascus-Serghaya railway; station yard; cultivation and wasteland in valley.

### (c) Lebanon.

- BE(C) 33°53'n 35°30'E BEIRUT CITY – Najmeh district, near post office headquarters; severely bomb-damaged streets with much pioneering vegetation overgrowing ruins.
- BE(H) 33°51'N 35°32'E – suburban hill near Beirut.
- BE(R) 33°52'N 35°32'E BEIRUT RAILWAY YARD – extensive area of sidings around the former C.F.L. (Chemin de Fer de l'Etat Libanais) station; disused; now well vegetated with abundant wild flowers.
- BE(S) 33°54'N 35°32'E BEIRUT (SHED) – abandoned DHP locomotive depot with stored engines near Beirut port area.
- JOU 33°59'N 35°38'E JOUNIEH – seaside resort north of Beirut.
- R 33°51'N 36°00'E RAYAK – small town in southern Beqaa valley; formerly an important railway junction:  
 (B) bridge over railway, outside town  
 (S) disused station and surrounding area; overgrown sidings; agricultural land; grass verges  
 (W) works – DHP locomotive store; now controlled by the military; adjacent roadside verges.

### Acknowledgements

I wish to thank G.W. (“Bill”) Alborough of TEFS Travel Service for organising and leading this tour, and Torben B. Larsen for help in identifying some of my photographs.

### References

- Larsen, T.B., 1974. *Butterflies of Lebanon*. 256pp. National Council for Scientific Research, Beirut.
- Larsen, T.B. & Nakamura, I., 1983. The butterflies of east Jordan. *Ent. Gaz.* **34**:135-208.